

We claim:

1. Open-celled foam beads having a mean bead diameter of from 1  
5 to 10 mm and a bulk density of from 5 to 200 g/l based on propylene polymers and having a proportion of open cells (in accordance with DIN ISO 4590) of greater than 40%.
2. Open-celled foam beads as claimed in claim 1, wherein the  
10 propylene polymer is a homopolymer or copolymer of propylene with up to 15% by weight of ethylene and/or 1-butene.
3. Open-celled foam beads as claimed in claim 1, which have, in  
15 the DSC thermodiagram, at least one high-temperature peak at a higher temperature than the melting peak of the propylene polymer employed.
4. Open-celled foam beads as claimed in claim 1, wherein the  
20 mean cell diameter is from 0.01 to 0.5 mm.
5. Open-celled foam beads as claimed in claim 1, which have a content of from 1 to 40% by weight of a cell opener.
6. A process for the production of open-celled foam beads as  
25 claimed in claim 1 by impregnating propylene polymer beads in suspension with a volatile blowing agent in a pressure container at elevated temperature and subsequently decompressing the mixture, wherein the propylene polymer beads comprise from 1 to 40% by weight of a cell opener.
7. A process as claimed in claim 6, wherein the blowing agent is  
30 an organic compound having a boiling point of between -5 and 150°C, preferably a C<sub>4</sub>- to C<sub>6</sub>-hydrocarbon, or an inorganic gas.
8. A process as claimed in claim 6, wherein the cell opener is a  
35 polar, water-insoluble thermoplastic, preferably a polyamide or polyoxymethylene.

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9. A process as claimed in claim 6, wherein the cell opener is a needle-shaped inorganic solid, preferably cut glass having a length of from 0.25 to 5 mm.
- 5 10. A process as claimed in claim 6, wherein the cell opener is a water-soluble polymer, preferably polyvinylpyrrolidone, polyvinyl acetate or polyethylene oxide.
11. An open-celled foam molding produced by post-expansion and  
10 sintering of the foam beads as claimed in claim 1.

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